TEXAS STATE SOIL & WATER CONSERVATION BOARD



SEMI – ANNUAL REPORT

TO THE

GOVERNOR,
LIEUTENANT GOVERNOR,
AND
SPEAKER OF THE HOUSE

JANUARY 1, 2005

FORWARD

In response to S.B. 1828 passed by the 78th Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of water conservation district activities.

The FY05 Operating Budget versus Expenditures is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Federal grants received for the Clean Water Act are provided in that section.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and already reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

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HISTORICAL BACKGROUND

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capitol. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchannan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be

in their hands. As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939 the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 217 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the "Dust Bowl" days of the 1930s. The 44th Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to "conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds." Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981 the 67th Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985 the 69th Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code. In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received \$9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73rd Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

ORGANIZATION

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 217 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78th Legislature, two Governor appointees join the five elected board members to create a seven-member board. Currently the two Governor appointed positions remain unfilled. When appointed, the term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and shows which State Board Region they represent.

Texas State Soil and Water Conservation Board

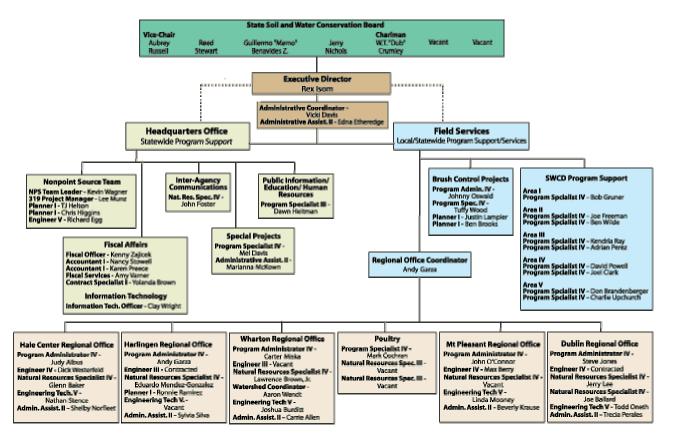
Member Name	Region	Term	Residence
Aubrey L. Russell	#1	May 5, 2003 – May 3, 2005	Panhandle
Reed Stewart	#2	May 4, 2004 – May 2, 2006	Sterling City
Guillermo "Memo" Benavides Z.	#3	May 5, 2003 – May 3, 2005	Laredo
Jerry D. Nichols	#4	May 4, 2004 – May 2, 2006	Nacogdoches
W.T. "Dub" Crumley	#5	May 5, 2003 – May 3, 2005	Stephenville

STAFF

Mr. Rex Isom was named as the Executive Director in January 2004 and continues to carry out the directives of the State Board and directing staff efforts.

We emphasize our agency philosophy as stated in our Strategic Plan, "The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility." Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

On December 1, 2004 the TSSWCB employed 55 staff, 17 of which work in the Temple headquarters. The remaining 38 employees are field staff, either working out of their homes or located in the five regional offices located throughout the state. After the first of the year two more field staff will be added: one in the Harlingen Office and one in the Mount Pleasant Office. Additionally, the TSSWCB has been provided funding for two new Natural Resource Specialist III positions for statewide poultry operations and a new TSSWCB Poultry Office in Nacogdoches to further address the growing needs for poultry water quality management plans. A Program Specialist IV was assigned to a field location in Nacogdoches County in FY04 to represent the agency on poultry issues. Due to difficulty in recruiting engineers, two field engineer positions are contracted. The following organization chart shows the agency's current structure.



The current structure of the TSSWCB now reflects efforts to place more personnel in the field and away from headquarters for a 70% to 30% ratio of Field personnel to Headquarters personnel.

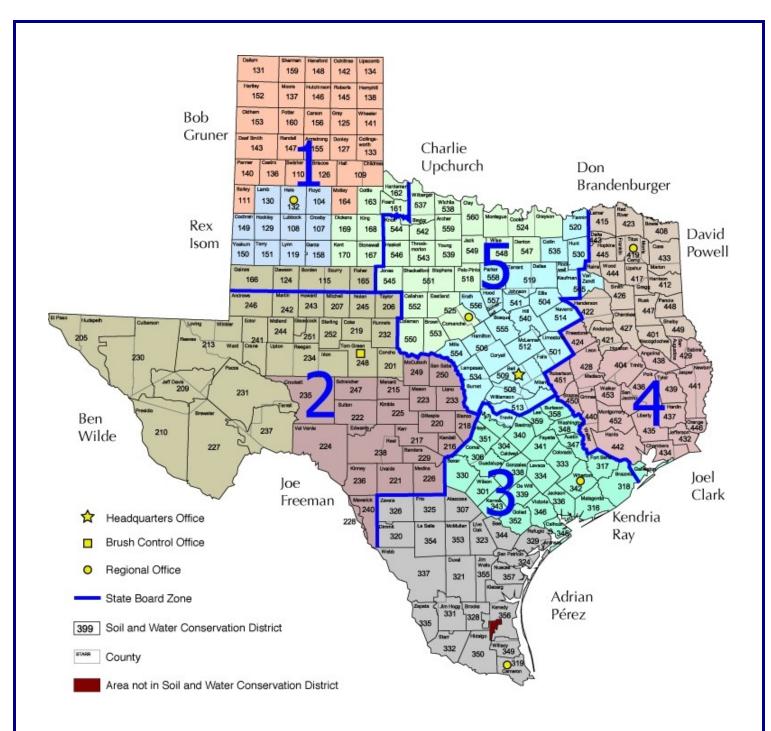
The regional office staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff coordinates with the Texas Commission on Environmental Quality (TCEQ), Texas Cooperative

Extension (TCE), and the USDA's Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners on conservation projects.

SOIL AND WATER CONSERVATION DISTRICTS

The TSSWCB performs many of its activities in coordination with the state's 217 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 217 local districts that cover almost the entire state. That portion of the state not in a soil and water conservation district is in Kenedy County and contains the privately owned King Ranch. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

ANNUAL STATE MEETING OF SOIL AND WATER CONSERVATION DISTRICT DIRECTORS

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, convened in Laredo last October. There were 121 districts represented, with 248 individual district directors that registered for the meeting. The total registration was 660.

For the 2005 calendar year, the state meeting is scheduled for October 24-26 in Corpus Christi.

DIRECTOR MILEAGE AND PER DIEM

Due to the reductions in staff at the headquarters office, director mileage and per diem claims are now managed directly by districts. The TSSWCB sent each district 75% of their approved allocation (grant) on October 1, 2004. The remaining 25% will be used as a pool for any expenses not covered through the initial allocation (grant). Field staff will approve each claim before payment to ensure claims are accurate and comply with state statutes and guidelines. The FY05 state appropriation for this program is \$325,000.00.

DISTRICT TECHNICAL ASSISTANCE FUNDS

Rider 4 of the TSSWCB 2004-2005 Appropriation revised the allocation method for technical assistance funds. On September 1, 2004, the TSSWCB authorized the payment of 25% of each district's approved allocation (grant). The remaining balance for each district allocation will be distributed on a reimbursement basis during the fiscal year as expenditures are incurred. The FY04 state appropriation for this program is \$1,036,241.00.

DISTRICT SUB-CHAPTER H FUNDS

Sub-chapter H funds were appropriated to the TSSWCB from the Agricultural Soil and Water Conservation Account No. 563. Senate Bill 1053 enacted by the 78th Legislature moved the bond that funded Account No. 563 to the Texas Water Development Board (TWDB). Account No. 563 no longer exists and future funding for what was Sub-chapter H grants will come from the TWDB in the form of competitive Agricultural Water Conservation Grants. The TWDB adopted rules and developed a grant application process for distributing the funds from the fund. The TSSWCB, on behalf of districts, applied to the TWDB for grant funding. The Texas Water Development Board met June 16, 2004 to review applications and awarded the State Board a grant of \$115,000.00 for agricultural water conservation to be carried out by districts.

The FY05 Agricultural Water Conservation Grants from TWDB will be awarded next spring. The TWDB will be publishing Requests For Applications (RFA) in the December 31, 2004 issue of the *Texas Register* to initiate the process of considering funding water conservation projects this year. The TWDB has allocated \$100,00.00 for grants to state agencies. The grants are to be used for an agricultural water conservation program for providing statewide technical assistance for irrigation water conservation practices.

DISTRICT CONSERVATION ASSISTANCE PROGRAM

District Conservation Assistance funds are appropriated to the TSSWCB from general revenue funds. Of the 217 local soil and water conservation districts, 216 districts request to receive an allocation (grant) from these funds. Local districts receive these funds as a dollar for dollar match for money that they generate locally through various activities. The local districts use this money to pay operational expenses. The FY04 state appropriation for this program is \$916,364.00.

PROGRAMS & ACTIVITIES OF THE TSSWCB

The services and programs provided by the TSSWCB target rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by soil and water conservation districts serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in suburban drinking water supplies. Another example is the use of best management practices, implemented through TSSWCB-certified water quality management plans, to prevent pesticides, nutrients, and other contaminants from impairing Texas waters.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency for the prevention, management, and abatement of nonpoint source pollution resulting from agricultural and silvicultural, or forestry-related, activities. As a result, the majority of the agency's programs and services aim to improve and protect water quality. The TSSWCB is also responsible for water conservation, or water quantity. The major existing program addressing water conservation is the Texas Brush Control Program, although the agency is conducting preliminary work on a new program that would provide assistance to Texas landowners who irrigate cropland from both ground and surface water sources. The Water Conservation Taskforce, created by Senate Bill 1094 from Senator Duncan, issued a final report to the Legislature recommending a state cost-share program be implemented through the TSSWCB to assist landowners in implementing best management practices that conserve water resources. If the agency is asked to fully develop the new program by the Legislature, it would likely be patterned after the Water Quality Management Plan Program created by Senate Bill 503 in 1993. Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the Texas Commission on Environmental Quality related to nonpoint source pollution. The TSSWCB has no regulatory functions; all of the agency's programs and services are voluntary in nature.

TOTAL MAXIMUM DAILY LOAD (TMDL) PROGRAM

Section §303(d) of the 1972 Federal Clean Water Act (CWA) requires all states to compile a list of water bodies that do not meet their designated uses and then to develop total maximum daily loads (TMDLs) for the particular pollutant(s) that is causing the impairment. Following the development of a TMDL, a state approved implementation plan is developed prescribing the measures needed to restore the polluted water bodies.

In Texas, the responsibility to develop TMDLs is shared between two state agencies: the Texas State Soil and Water Conservation Board (TSSWCB) and the Texas Commission on Environmental Quality (TCEQ). In general, the TCEQ is the lead agency for protecting Texas' water quality. However, TCEQ shares the responsibility for managing and abating nonpoint source pollution with the TSSWCB. The TSSWCB is designated as the lead agency for *agricultural and silvicultural* nonpoint source pollution

abatement while the TCEQ is the state's lead agency for *urban* nonpoint source pollution abatement and for *point source discharge permitting* through the Texas Pollutant Discharge Elimination System. As a result, any organization considering undertaking a TMDL project for a water body listed for an impairment due to agricultural or silvicultural nonpoint source pollution must coordinate efforts with the TCEQ and with the TSSWCB.

There are numerous watershed segments on the §303(d) List that involve agricultural nonpoint source (NPS) pollution and are targeted by TSSWCB Programs (i.e. CWA §319 and WQMP Programs) as funding becomes available. The TSSWCB is actively involved in the development for of TMDLs for 24 water bodies and the implementation of 5 TMDLs (E.V. Spence Reservoir, North Bosque River, Lake Aquilla, Lake of the Pines, and Arroyo Colorado) that have been identified as being impaired, at least in part, by agricultural activities. These TMDLs, which are primarily addressing dissolved oxygen/nutrients, bacteria, Atrazine, and salinity, are being implemented using both CWA §319 funding and WQMP Program funds. These programs are described in detail in following sections.

CLEAN WATER ACT, §319(h) GRANT PROGRAM

Background

Congress enacted Section 319(h) of the Clean Water Act in 1987, establishing a national program to control nonpoint sources of water pollution. Through Section 319(h), federal funds are provided through the EPA to states for the development and implementation of the State's Nonpoint Source Management Program. The 319(h) funding in Texas is divided evenly between the TCEQ and TSSWCB. The following report provides an overview of TSSWCB's 319(h) program status and major ongoing activities.

FY 2005 CWA 319 Funding Allocation

The FY 2005 CWA 319 funding allocation for the EPA is \$207 million nationally, down from \$238 million in FY 2003. That is a 13% drop in two years. Therefore it is very important that we recruit and select projects that meet national load reduction goals, have quantifiable environmental benefits, and meet with Program Assessment Measures.

Texas' total federal allocation is \$9,512,300 (\$4,763,900 Base + \$4,748,400 Incremental). The TSSWCB 319 program allocation is:

Base = \$2,381,950 and Incremental = \$2,374,200;

Federal Total = \$4,756,150;

Required Matching total is \$3,170,767;

Total Expected Grant Application will be (Federal + State Match) = \$7,926,917.

Fiscal Year 2005 Grant RFP

The TSSWCB accepted pre-proposals for FY 2005 funding from October 1, 2004 through November 26, 2004. The TSSWCB received 21 pre-proposals requesting a total of \$5,638,506 in federal funds. The TSSWCB staff is currently reviewing and ranking the pre-proposals.

State Nonpoint Source Management Plan

An approved Management Plan is a requirement for receiving 319 Grant funding. The current Management Plan expires in January 2005. The NPS Management Program revision is in the last developmental stages for Final Draft status. Formal "response to comments" (RTC), addressing EPA's most recent set of comments, has been completed and will be sent in December of 2004, for EPA review, along with the newly revised Draft. Following negotiation with EPA, the document will begin the Publications Review process and Public Comment period, which should take approximately two months. TSSWCB Board members and TCEQ Commissioners will then review for formal approval and permission to forward to the Governor. The Attorney General will provide certification and the Governor's signature will finalize the document. The finalization process is projected to take an additional month, placing completion of the revised NPS State Management Program at around March or April of 2005.

2004 Annual Report

In order to receive 319 funds, the State of Texas must also submit a Report on the Activities of the Texas NPS Pollution Program annually. The TCEQ develops the report on odd number years and the TSSWCB develops the report on even numbered years. Thus, the TSSWCB staff is responsible for preparing the FY 2004 Annual Report. TSSWCB met with EPA on October 5, 2004 to gain their input on the report. Staff also met with TCEQ on October 22, 2004. This report must be submitted to EPA in January 2005 to ensure continued funding.

End of Year Meeting With EPA

On November 23, 2004, the EPA conducted its end of year review of the TSSWCB. The primary purpose of this meeting was to update EPA on all current projects and activities. The TSSWCB is awaiting EPA's feedback.

Fiscal Year 1999 Grant Closeout

The TSSWCB closed out the FY 1999 grant and projects in November 2004. Remaining funds from the FY 1999 grant were moved into the FY 2004 grant to fund new projects.

Fiscal Year 2004 Grant Approval

EPA awarded the FY 2004 grant to the TSSWCB on July 21, 2004. Contracts for all 16 FY2004 projects have been initiated by the TSSWCB.

Project Management

With the addition of the FY04 Grant and the closeout of the FY99 Grant, there are currently 66 ongoing 319 projects. The \$25 million provided through the Clean Water Act, §319(H) Nonpoint Source Grant Program is being utilized for NPS from poultry operations and dairies, runoff of atrazine from cropland, salt cedar, watershed planning, groundwater quality improvement, assessing sources of bacteria, educational programs for the forest industry, and other implementation, education, and assessment projects (Figure 1). Quarterly reports for ongoing projects were received on July 15, 2004 and October 15, 2004. To date, project reports have been received for 100% of the projects. These reports are entered into

EPA's Grant Reporting Tracking System. The TSSWCB has also began conducting financial audits on one 319 projects each quarter. Last quarter, an audit was conducted on the Shelby SWCD 319 project on November 9, 2004.

Project spotlights are provided below.

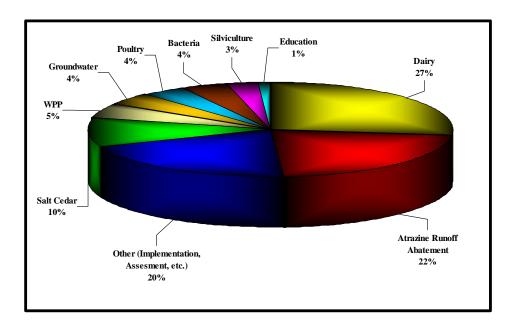


Figure 1.0 TSSWCB active state and federal 319(h) grants for FY 2000 – FY 2004.

Santa Rosa Springs Water Quality Preservation Project

The Santa Rosa Spring is located in Northern Pecos County between Grandfalls and Fort Stockton. At one time there were 42 live springs in Pecos County, including the famous Comanche Springs, Leon Springs, Santa Rosa Springs, and the Diamond Y Spring. Due to irrigation draw-down, drought, and the encroachment of water depleting salt cedar, that number has been reduced to only two: the Santa Rosa, and the Diamond Y Springs. These springs are a unique feature because they are located in the heart of the Chihuahuan Desert.

The Santa Rosa Springs was used primarily for irrigation until sometime around 1950, as a result of decreased flow. The owners at the time decided that they should create a water district to try



to bring the flow of the spring back. The Pecos County Water Control and Improvement District #2 was created in 1955 by an act of the Texas Legislature. Several schemes were attempted to provide additional water for the spring including: dredging; building a dam; and drilling a well to tap into an artesian formation. Due to the prolonged drought, the artesian formation that the water district hoped to tap into was not flowing. Instead of filling the spring with water, the well drained the spring. The water district did manage to put a makeshift cap in the well before abandoning operations in the early 1960s.

Schuyler Wight III purchased the property in 1987. In 1999, after seeing successful results from experiments using Arsenal herbicide on the Pecos River, Mr. Wight began treating the dense stands of saltcedar that had grown up in and along the catchments around the old spring. As the saltcedar died out, the historic spring began bubbling back to life.



In January 2001, Mr. Wight found the old abandoned Pecos County Water Control and Improvement District well flowing near the spring. He immediately called the Texas Railroad Commission (RRC) because he assumed that it was an old oil well. The water from the well was determined to have concentrations as high as 78,000 ppm total dissolved salts. In comparison ocean water generally has a salinity of 35,000 ppm. A temporary cap was installed on the wellhead by the RRC to stop the flow of approximately 100,000 barrels per day of salt water while they searched for a responsible operator. Since a responsible operator

could not be located the well became Mr. Wight's responsibility. The immediate concern was that the salt formation would move upward or outward and reach the Santa Rosa Spring or the Pecos Tertiary Alluvium fresh water aquifer. Additionally, there was a concern that saltwater would flow approximately four miles and empty directly into the Pecos River. Mr. Wight sought the assistance of the TSSWCB. As a result, there were two projects funded by the TSSWCB §319(h) grant to decommission the water well in order to prevent the destruction of the environmentally and historically significant Santa Rosa Springs and subsequent contamination of parent groundwater by excessive salinity. The Pecos County Water Control and Inspection District #2 well was successfully decommissioned in July 2004. It is estimated that this prevented the flow of almost two tons of salt per day into the spring and eventually the Pecos River.

Salinity Reduction in the E.V. Spence

The TSSWCBs §319 program is currently funding three projects to aid in implementing the Implementation Plan for Sulfate and Total Dissolved Solids TMDLs in the E.V. Spence Reservoir. These projects are chemically and biologically treating saltcedar in riparian areas along the Colorado River and its tributaries in an effort to reduce NPS pollution loadings resulting from invasive brush species on agricultural lands. Two of the projects are examining biological control of salt cedar by introducing the Chinese leaf beetle (*Diorhabda elongate*) to the E. V. Spence Reservoir, monitoring the results with satellite imagery and modeling the dispersal rate of the leaf beetle in areas where chemical control is not feasible due to sparse stands, close proximity to sensitive vegetation and to manage salt cedar regrowth following chemical treatment.

The third project involves chemically treating salt cedar by aerial application of the herbicide *Arsenal* in a 150-ft wide corridor (75 ft on each side of the river) along the Colorado River and its tributaries. During FY 2004, the first year of the project, approximately 1500 acres were scheduled to be treated however; there was no spraying due to undesirable leaf canopy conditions. Therefore the acreage scheduled for 2004 will be combined with the acreage scheduled for 2005 and approximately 2,770 acres will be treated during FY 2005 if conditions are conducive.

Water Quality Management Plans for Poultry Operations

Since 1999, seven projects funded through the §319(h) grant have provided technical and financial assistance through local SWCDs to poultry producers to obtain and implement certified WQMPs. This program is described in detail in other sections of this document.

Texas Silvicultural Nonpoint Source Pollution Project

The Texas Silvicultural Nonpoint Source Pollution Project has had a tremendous impact on water quality in the forested region of East Texas. Through this project, the forestry community has been able to prevent almost 12,000 tons of sediment from reaching streams and 96,000 tons of sediment from eroding off East Texas forestlands every year by using Forestry Best Management Practices. Visually, this is enough sediment to cover a football field, end zone to end zone, over thirty five feet high.

How do we know that we are actually protecting water quality? The Texas Forest Service recently began an innovative, high-tech monitoring project designed to test the effectiveness of our state recommended BMPs. This project will provide data on the effectiveness of our BMPs by measuring stream habitat, biological communities, and physiochemical properties before and after forest operations. Another method that is often used is by monitoring randomly chosen forestry sites for BMP implementation. Last round recorded the highest ever BMP implementation rate in the history of the program. To date, over 800 forest operations have been evaluated for the implementation of BMPs. Early projections show the current round to meet or exceed these record levels.

Education and technical assistance has been vital to the success of this project in protecting water quality. To date, over 2700 loggers have been trained in BMPs through 109 workshops. An online BMP refresher course is scheduled to be released this spring. An estimated 500 people per year are expected to participate. Over 30 major forest landowner workshops have been held throughout Texas to inform landowners on the importance of using BMPs, reforestation, and wildlife reaching nearly 4,000 people. An aggressive advertising campaign that includes radio and TV ads, newspaper articles, newsletters, and billboards has targeted over a million people. The Texas Forestry Best Management Practices Handbook was updated in 2004, allowing the forestry community to achieve greater water quality protection.

North Bosque River Restoration Initiative

The North Bosque River in north central Texas has water quality degradation from excessive nutrient loading attributed in part to growth of the local dairy industry and resultant increases in land application of manure waste. The TSSWCB has initiated a number of 319 projects in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque and Leon River watersheds. These activities are described in detail in other sections of this document.

Federal Funds	Project Title
\$115,477	Administration of the FY2000 CWA Section 319(h)
	Agricultural/Silvicultural NPS Management Program
\$197,972	Statewide NPS Pollution Management Project
\$1,018,400	North Central Texas Atrazine Remediation
\$404,200	North Central Texas Atrazine Remediation
	\$115,477 \$197,972

Dalworth SWCD	\$93,849	North Central Texas Atrazine Remediation
Ellis - Prairie SWCD	\$456,700	North Central Texas Atrazine Remediation
TIAER	\$2,344,521	Composting Support in Bosque River Watershed

FY 2000 Total \$4,631,119

Grantee	Federal Funds	Project Title
TSSWCB	\$228,574	Administration of the FY2001 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program
TSSWCB	\$208,890	Statewide NPS Pollution Management Project
Upper Sabine SWCD	\$418,366	North Texas Atrazine Remediation
Collin County SWCD	\$404,200	North Texas Atrazine Remediation
Fannin SWCD	\$246,700	North Texas Atrazine Remediation
Upper Elm-Red SWCD	\$246,700	North Texas Atrazine Remediation
Gonzales SWCD	\$412,700	WQMP Development & Implementation Assistance
Panola SWCD	\$529,285	WQMP Implementation Assistance in the Toledo Bend Reservoir Watershed
TAMU PFRL	\$166,352	Aquilla Reservoir TMDL Implementation Plan Monitoring
Cross Timbers SWCD	\$1,684,616	Technical and Financial Assistance in the Bosque River Watershed
Upper Leon SWCD	\$1,315,974	Technical and Financial Assistance in the Bosque River Watershed

Grantee	Federal Funds	Project Title
TSSWCB	\$348,705	Administration of the FY2002 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program
TSSWCB	\$373,657	Statewide NPS Pollution Management Project
Rusk SWCD	\$376,461	WQMP Implementation Assistance in the Sam Rayburn & Toledo Bend Reservoirs Watersheds
Texas Forest Service	\$431,394	Texas Silviculture
Central Texas SWCD	\$406,220	Little River Atrazine Remediation
Little River - San Gabriel SWCD	\$309,020	Little River Atrazine Remediation
TIAER	\$200,050	Composting Support in Bosque
TFB, TAES, TAMU AREC	\$639,742	DNA Sample Collection/Library
TCE	\$203,178	Phosphorus Index
Southmost, Shelby, & Ellis- Prairie SWCDs	\$456,438	Three - Technicians
Nueces SWCD	\$536,502	Oso Creek/Oso Bay Watershed Implementation Assistance
TCE	\$191,636	North Texas Atrazine Demonstration
TSSWCB	\$135,000	Water Quality Information/Education
Southmost SWCD	\$500,000	Implementation Support Project in the Arroyo Colorado Watershed
Pineywoods RC&D	\$147,497	Development of New Litter Markets in TX

Leon Bosque RC&D Council	\$52,500	Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure

FY 2002 Total \$5,308,000

Grantee	Federal Funds	Project Title
TSSWCB	\$154,231	Administration of the FY2003 CWA Section 319(h) Agricultural/Silvicultural NPS Management Program
TSSWCB	\$245,109	Statewide NPS Pollution Management Project
UCRA	\$19,200	The Aquatic Experience
Texas Forest Service	\$367,620	Texas Silviculture BMP Effectiveness Study
Shelby SWCD	\$350,000	Sam Rayburn WQMP Implementation Supplemental
TSSWCB	\$2,208,446	E.V. Spence Saltcedar
TWRI	\$247,198	Bacteria Monitoring for Buck Creek
TCE	\$98,341	Nitrate Impacts in Groundwater
Little River - San Gabriel & Central Texas SWCD	\$424,080	Central Texas WQMP Implementation Supplemental
TWRI	\$227,793	Technologies for Animal Waste Pollution
ARS - USDA	\$99,245	Leaf Beetle Demonstration
Navarro SWCD	\$430,279	Navarro WQMP Implementation Supplemental
BRA	\$96,081	Edge of Field Monitoring
TCE	\$101,271	Reducing Atrazine Losses in Central TX

NRCS-WRAT	\$158,400	Atrazine Modeling
BRA	\$190,815	Bosque Watershed Coordinator

FY 2003 Total \$5,418,109

Grantee	Federal Funds	Project Title
TSSWCB	\$154,220	Administration of the FY2004 CWA Section 319(h)
		Agricultural/Silvicultural NPS Management Program
TSSWCB	\$520,477	Statewide NPS Pollution Management Project
Leon-Bosque	\$300,000	Athletic Field Topdressing as a Commercial Market for
RC&D Council		Compost from Dairy Manure
TCE	\$390,657	Field Validation of the Texas P Index in the
		Poultry Areas of TX
LCRA	\$507,300	Creekside Conservation Program Project
NRCS-WRAT	\$96,000	Modeling Nutrient Loads from Poultry Operations in the
		Toledo Bend & Sam Rayburn Reservoir Watersheds
Jack SWCD	\$100,000	Technical Assistance and Implementation in West Fork
		of the Trinity River Watershed
Zapata SWCD	\$461,290	WQMP Implementation Assistance in Falcon Reservoir
		Drainage Area in Zapata Co.
TWRI	\$764,054	Seymour Aquifer Water Quality Improvement
TAES	\$238,959	Phytoremediation of excessively high phosphorus soils and
11100	42 50,757	subsequent reduced P runoff into North Bosque River
TWRI	\$709,381	Watershed Protection Plan Development for the Pecos River

TIAER	\$90,090	Little Wichita River Watershed Protection Plan
UCRA	\$375,240	Development of a Watershed Protection Plan for the Concho River Basin
NETMWD	\$442,805	Assessment and Mitigation of Agricultural and Other NPS Activities in the Cypress Creek Basin
ARS-USDA	\$136,724	Mathematical Model for Dispersal of Leaf Beetle, Diorhabda Elongata from Old World released in U.S. for Biological Control of Invasive Saltcedar
Nueces River Authority	\$170,703	Nueces Basin Headwaters Stewardship Project

FY 2004 Total \$5,457,900

WATER QUALITY MANAGEMENT PLAN (WQMP) PROGRAM

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office will open in Nacogdoches in January 2005. The Regional Offices are:

- Dublin Regional Office
- Hale Center Regional Office
- Harlingen Regional Office
- Mount Pleasant Regional Office
- Wharton Regional Office
- Poultry Program Office (Nacogdoches Coming in January 2005)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts, that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ cannot participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TECQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation, however cost-share may not exceed 75% with a maximum \$10,000 grant limit per plan. Landowners receiving financial incentive have approximately three years to implement the provisions of the WQMP.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans

received financial incentives from federal funds. State appropriations provided to local districts in FY04 amounted to \$2,171,740.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices are now administered from the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

For FY04 the WQMP Program met or exceeded three of its major performance measures. A total of 996 WQMP were certified in FY-04. All five Regional Offices conducted their required evaluations effective through the program cycle of FY-02. The evaluation period for the next round of cost-share allocations for FY-05 will include the fiscal years 98-02.

Cooperative agreements have been executed with all participating districts. These agreements will allow the districts to reobligate FY-04 cost-share funds that have been released for one reason or another. Hopefully, this approach will alleviate the problem of lapsed funds that has been a major issue with the program.

POULTRY WATER QUALITY MANAGEMENT PLAN (WQMP) INITIATIVE

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas - Senate Bill 503 Cost-share Area. Since 1994, over \$300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs).

In 1995, the TSSWCB initiated three Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry-WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed in 1999, the TSSWCB began using §319 funds for cost-share in the area in addition to the Senate Bill 503 cost-share funds already directed to the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

All together, the TSSWCB has focused \$5.3 million in §319 funding and over \$3 million in state funding to assist poultry operations with abating NPS pollution in Texas. Four of the sixteen §319-funded projects are ongoing. Another \$2.9 million in USDA-NRCS Environmental Quality Incentives Program (EQIP) funding was obligated to assist poultry producers in Northeast Texas and Gonzales County from 2000 to 2003.

The 77th Legislature, in 2001, passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures and schedules of implementation.

This law provides a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds.

Since the effective date of the new law, the TSSWCB has identified 1495 total poultry farms, of which 1321 (88%) currently operate under a certified WQMP. The TSSWCB estimates that no farms need to request a WQMP before January 2005 and 90 farms before January 2008. The other estimated 84 farms have already requested a plan and those plans are in various stages of development. However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production and locating other poultry farms not yet identified.

Producers who fail to submit an application for a WQMP before the appropriate submission date for their specific facility are subject to enforcement actions by the Texas Commission on Environmental Quality. In FY04, new WQMPs have been developed for 140 poultry farms and 95 existing WQMPs have been revised for poultry farms. In addition, status reviews have been conducted on 257 poultry farms in Texas, which is approximately 19% of poultry farms with a WQMP.

Since 2001, seven soil and water conservation district (SWCD) technicians have been employed under Federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Those contracts will expire in 2004. An eighth §319 district technician was hired in 2003 in the Shelby SWCD to conduct WQMP status reviews and that contract will expire in 2005. As a result, beginning in FY 2005, there will be a substantial reduction of available staff for developing new plans, conducting status reviews, and revising plans as needed.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) has adopted a rule change that requires dry-litter poultry operations larger than 125,000 or more broilers or pullets, 82,000 or more layers or breeders, or 55,000 turkeys to operate under a water quality permit. Prior to this change in the federal regulations, dry-litter poultry operations were not required to have a permit. The requirement for a permit becomes effective in 2006. TSSWCB estimates between

200-500 poultry operations will require permits. The final CAFO Rule adopted by TCEQ recognizes that a poultry operator's existing WQMP meets the majority of the technical requirements required by a permit. The TSSWCB Staff is currently working on a new guidance document, Converting Water Quality Management Plans into Pollution Prevention Plans on Dry Litter Poultry Operations Requesting General Permit Coverage, to assist poultry producers in utilizing their existing WQMPs as a component to the general permit. TCEQ and TSSWCB are currently in discussions that should result in TSSWCB "WQMP-status reviews" contributing to the permit inspection process. TSSWCB would perform status reviews on 20% of the permitted operations using WQMPs as a permit component, per year. TSSWCB would transmit information on each of these status reviews to TCEQ on a quarterly basis. Noncompliant producers would be referred to TCEQ under an existing process.

Beginning in fiscal year 2004, a TSSWCB Poultry Program Specialist was assigned to a field location in Nacogdoches County to assist with all aspects of the Poultry WQMP Program. Approximately 500 (33%) of the estimated 1495 poultry farms in Texas are located in Nacogdoches and Shelby counties. Approximately 79 (16%) of the existing farms in those two counties still need a WQMP developed. The specialist also assists other soil and water conservation districts with poultry WQMP development as needed. Additionally, in FY05, the TSSWCB has been provided funding for two new Natural Specialist III positions for statewide poultry operations who will be based at a new TSSWCB Poultry Office in Nacogdoches to further address the growing needs for poultry water quality management plans and coordinate with TCEQ on permitted facilities.

State appropriated grants in FY04 were made to the Hopkins-Rains SWCD and the Nacogdoches SWCD in East Texas for technical assistance in the Poultry WQMP Program for \$250,000.00. State appropriated grants made to entities other than local districts in FY04 were two grants made to the USDA-Agricultural Service (ARS). The first grant was for \$114,989.00 to conduct an investigation of nutrient loss mechanisms from land-applied poultry litter. The second grant was for \$80,000.00 to conduct an investigation of additional tasks involving nutrient loss mechanisms from land-applied poultry litter.

The following is a summary of the status of farms needing a WQMP that we are currently aware of:

<u>Date Due</u>	Status	Number of Farms
1/1/2002	Not Signed-up	0
1/1/2002	Plans in Progress	1
1/1/2003 1/1/2003	Not Signed-up Plans in Progress and/or Signed-up	0 3
1/1/2005	Not Signed-up	0
1/1/2005	Plans in Progress and/or Signed-up	8
1/1/2008	Not Signed-up	90
1/1/2008	Plans in Progress and/or Signed-up	29
Unknown	Not Signed-up	0
Unknown	Plans in Progress and/or Signed-up	35
N/A	Turkey Farms Not Signed-up	7 (6 of 7 assumed to be out of business)

N/A Turkey Farms In Progress 0

Subtotal: 174

Unknown Additional Gonzales area farms* 30

NORTH BOSQUE RIVER WATERSHED INITIATIVE

In 1998 the North Bosque River (Segments 1226 and 1255) was included in the Texas CWA §303(d) List of impaired waters under narrative water quality standards related to nutrients and aquatic plant growth. In February 2001, the TCEQ adopted *Two Total Maximum Daily Loads for Phosphorus in the North Bosque River* for segments 1226 and 1255.

The TMDLs concluded that:

- Use of the two segments was "impaired" by high levels of nutrients.
- The nutrient of principal concern was soluble reactive phosphorus (SRP)
- Reduction of SRP of approximately 50% would reduce the potential for problematic algal growth in the river.
- The major controllable sources of nutrients in the North Bosque River basin were municipal wastewater treatment plants (WWTPs) and NPS pollution from dairy waste application fields (WAFs).

In December 2002, both the TCEQ and the TSSWCB adopted *An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed*. The four basic elements of phosphorus control identified in the plan were:

- Phosphorus application rates in WAFs.
- Reduced phosphorus diet for dairy cows to reduce the phosphorus content of dairy wastes.
- Removing approximately half of the dairy-generated manure from the North Bosque River watershed for use or disposal outside of the watershed.
- Effluent limits on phosphorus for municipal wastewater treatment plants.

Before and since the adoption of the Implementation Plan, the TSSWCB TMDL Program has been actively working on numerous projects and programs designed to assist the agricultural community in meeting its recommendations and requirements. All of the efforts explained in the following discussions are in support of the TMDL and the Implementation Plan.

State appropriated grants to entities other than local districts for projects in the North Bosque River were made to one project. That project was for \$15,000.00 to Keith Broumley as financial assistance to conduct a Comprehensive Nutrient Management Plan to support the North Bosque River Anaerobic Digester Demonstration Project.

^{*} One integrator in the Gonzales area has indicated approximately 30 farms that are or have been wet operations and required permits will now convert to dry operations and will need WQMPs.

DAIRY MANURE EXPORT SUPPORT (DMES) PROGRAM

The TSSWCB initiated the Dairy Manure Export Support (DMES) program in an effort to bring an innovative solution to the problem of elevated phosphorus levels in the North Bosque and Leon River Watersheds. The DMES program offers financial incentives to commercial manure haulers to support the transport of raw manure from dairy farms in the North Bosque and Leon River Watersheds to commercial composting operations. The raw manure is then improved through a composting process so it may be put to beneficial use. Entities such as the Texas Department of Transportation and municipalities, as well as agricultural producers and the general public are some of the target purchasers of the composted product. The TCEQ, TSSWCB's partner in the overall regional program, provides rebates to these target purchasers to facilitate the development of a sustainable market. The export of this surplus manure (and the nutrients contained in the manure) will help address concerns regarding potential NPS water quality impacts associated with traditional on-farm land application of manure in the region.

Overall DMES program management is controlled through the TSSWCB. The TSSWCB has contracted everyday activities to the Texas Institute for Applied Environmental Research (TIAER) at Tarleton State University. In April 2001, TIAER subcontracted many aspects of the program to the Foundation for Organic Resources Management (FORM), which was replaced by imanage, LLC in July 2003. Through FORM, and later imanage, LLC, the DMES program has been managed at the local level through a DMES program office located in Stephenville, Texas. The TSSWCB has contracted TIAER to manage the program through August 31, 2004.

Participation requirements for dairies include being located in the North Bosque and/or Leon River Watersheds. Dairies must have (or have applied for) a TSSWCB–certified Water Quality Management Plan or a TCEQ water quality permit and an approved nutrient utilization plan. Each composting facility must be compliant with all state regulations regarding compost facilities and be approved for participation in TCEQ's Composted Manure Incentive Project (CMIP). Manure haulers must attend a workshop convened by the TSSWCB's contractor and obtain a vendor number from the Texas State Comptroller and authorize direct deposit.

Individual hauling jobs are coordinated through manure haulers that make arrangements with dairies and commercial composting operations. A manure hauler completes a job notification form, which is then submitted to the DMES office for approval. Once approval is received, the manure hauler performs the work and submits an invoice to the DMES office, which is signed by a representative of the dairy, accompanied by load tickets signed by a representative of the composting facility, and a scale ticket for each load. The DMES office prepares semi-monthly reimbursement request summaries, has them approved by TIAER, and then submits them to the TSSWCB for payment. Because the TSSWCB is using Clean Water Act §319(h) funding from the U.S. Environmental Protection Agency (EPA), the TSSWCB must then request that the funds be released from EPA to the TSSWCB. The TSSWCB then issues reimbursements via direct deposit to the manure haulers.

The initial target amount of manure to be exported from dairy farms participating in the program was 300,000 tons during a 36-month program period from October 2000 through October 2003. However, the program has continued to be funded and has resulted in more than 800,000 tons of raw manure being hauled to commercial compost facilities for export to locations outside of the North Bosque watershed. The TSSWCB anticipates the DMES Program will continue through August 2005 and possibly beyond if funding is available.

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN (CNMP) PROGRAM

The TSSWCB Comprehensive Nutrient Management Planning (CNMP) Program was developed in response to a control measure recommended in the *Implementation Plan for the North Bosque River Total Maximum Daily Load for Soluble Reactive Phosphorus*. The implementation plan recommended that dairy producers in the watershed voluntarily develop and implement a CNMP, however, the Texas Commission on Environmental Quality (TCEQ) has recently adopted a rule that makes the recommendation a requirement. This program is confined to the North Bosque River Watershed by TSSWCB rule.

A CNMP is a resource management plan containing a grouping of conservation practices and management activities which, when combined into a conservation system, will help ensure that both agricultural production goals and natural resource concerns dealing with nutrient and organic by-products and their adverse impacts on water quality are achieved. A CNMP incorporates practices to utilize animal manure and organic by-products as a beneficial resource. The TSSWCB selected requirements for a CNMP based on the TCEQ rules and regulations required for permitted and unpermitted animal feeding operations and criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS). The FOTG represents the best available technology and is already tailored to meet the needs of soil and water conservation districts all over the nation. To be certified by the TSSWCB, the local SWCD, the producer, and the local NRCS Field Office must approve a CNMP.

Although the TSSWCB adopted a set of technical criteria and program guidance that was customized for the specific resource concerns of the North Bosque watershed in 2002, recent changes to the technical requirements for permitted dairies under the TCEQ permitting program has resulted in the need for an update. The TSSWCB is currently working with the USDA-NRCS and TCEQ to develop updated criteria and guidance and anticipates it will be available in the Spring of 2005.

Water Quality Management Plan (WQMP) Program Implementation in the North Bosque Watershed

The regional offices are maintained around the state for the purpose of providing technical assistance to rural landowners interested in conserving natural resources and protecting water quality. The Dublin Regional Office is located within the North Bosque River Watershed, and has been providing service to the area since 1993. Since September 1, 2002 (three months prior to the adoption of the TMDL Implementation Plan), the TSSWCB has certified 40 WQMPs covering more than 8,500 acres in the watershed. As stated in the TMDL Implementation Plan, the TSSWCB is interested in working with SWCDs to get as many acres of land as possible under the scope of a nutrient management plan (nutrient management plans are required components of WQMPs that cover land receiving either commercial fertilizer or animal waste). The previously mentioned 40 WQMPs include more than 4,900 acres now within the scope of a nutrient management plan. They also include more than 2,400 acres scheduled for cover by improved vegetation under landowner/operator plans. Vegetation helps to prevent NPS pollution by absorbing nutrients and preventing erosion that can carry nutrients with sediment into the North Bosque River stream system.

CLEAN WATER ACT, §319(H) GRANT PROJECTS IN THE NORTH BOSQUE WATERSHED

Clean Water Act §319(h) Grant Program funding has been used extensively to assist in the development and implementation of the North Bosque River TMDL. Currently, seven CWA §319(h) are actively assisting the implementation of the North Bosque River TMDL. These are briefly described below.

Development of a Bacterial Source Tracking Library and Assessment of Bacterial Sources Impacting Lakes Waco and Belton

This project is a component of a larger statewide bacterial source-tracking (BST) program. This project includes Parsons Engineering Science, Inc., Texas Farm Bureau, Brazos River Authority, City of Waco, TSSWCB, and the Environmental Protection Agency as project partners.

Protection of our water resources is one of the most significant environmental challenges of the new millennium. Nonpoint sources (NPS) of pollution, especially from agricultural activities, can greatly impact water quality. One key component in effectively implementing a NPS pollution management program is the identification and assessment of sources of bacterial contamination, especially for impaired waterbodies on the Texas Clean Water Act §303(d) list. Proper evaluation of these sources is needed to develop microbial total maximum daily loads (TMDLs) and appropriate best management practices (BMPs). This information may also be useful to properly assess risk in contact recreation, as many waterborne pathogens causing human illness do not colonize nonhuman hosts.

Fecal coliform bacteria have extensively been used as an indicator of fecal pollution and the potential presence of other pathogenic microorganisms in water. It has been established that the fecal coliform bacterium *Escherichia coli* (*E. coli*) is more closely associated with fecal pollution than other fecal coliform bacteria, which may normally reside and multiply in the environment.

E. coli is a common inhabitant of animal and human intestines and recent studies have shown that isolates from humans and various host animals (e.g. cattle, chickens, and pigs) may differ genetically and phenotypically. Use of genetic and biochemical tests may allow the original host animal to be identified, referred to as bacterial source tracking (BST). Molecular tools appear to hold the greatest promise for BST, providing the most conclusive characterization and level of discrimination for isolates. Of the molecular tools available, ribosomal ribonucleic acid genetic fingerprinting (ribotyping) and pulsed-field gel electrophoresis (PFGE) are emerging as versatile and feasible BST techniques. A phenotypic characterization method, antibiotic resistance analysis, also has the potential to identify the human or animal origin of isolates. However, reference "libraries" of bacterial genetic fingerprints and antibiotic resistance profiles are needed to correctly identify the source of bacteria isolated from environmental water samples.

There are projects in progress at Lake Waco and Lake Belton, the San Antonio River and tributaries, Oyster Creek and a project planned for the greater Houston area. These projects have two general objectives: (1) to assess the water quality with regard to the relative contributions of fecal bacteria from bovine, human, and other animal contributions to the water bodies and (2) to develop local libraries, genetic and biochemical that can be used in determining the animal or human nonpoint fecal source contamination of surface water.

Field Validation of the Texas Phosphorus Index

This project is intended to determine the effects of selected soil properties in the North Bosque and Leon River Watersheds for measuring and predicting phosphorus runoff, as well as comparing and correlating different soil test and soil solution soluble phosphorus extracts to runoff phosphorus. The project, carried out by Texas Cooperative Extension, will also attempt to validate and/or modify the Texas Phosphorus Index as a predictive tool for classification of field sites relative to phosphorus loss potential. The information attained from these field studies will help validate and improve the Texas Phosphorus Index. With this information and additional studies similar to this across the state, quantitative assessments to predict the amount of phosphorus in runoff utilizing the Texas Phosphorus Index can be estimated. The runoff analyses will help determine the form of phosphorus, and whether it is mainly solution soluble or suspended. This will enable identification of appropriate best management practices to reduce the amount of phosphorus leaving fields, thus decreasing the amount of phosphorus reaching surface water resources. The Texas Phosphorus Index is an integral part of effective nutrient management planning.

Improving Water Quality by Developing, Implementing, and Field Testing Innovative Methods

This project, conducted by Texas Water Resources Institute, provides funding for the testing of new technologies designed for reducing water pollution associated with animal production systems, principally dairies. The focus is restricted to reducing phosphorus in dairy waste streams. Four technologies have already been selected, while the overall project is designed to accommodate two additional technologies yet to be determined. The four selected technologies include an electrocoagulation system, a polymer enhanced solids separation system, an aeration with microbubblers system, and a geotextile solids separation system. These technologies are tested and utilized in municipal waste treatment systems, dredging and sediment recovery from streams, and the oil and gas industry but they have not been adequately tested or demonstrated for treating animal waste. This is especially true for testing these technologies for the reduction of phosphorous from land applied liquid dairy manure in the Bosque River Watershed.

Edge-of-Field Monitoring of a Wastewater/Manure Management System Demonstration

This project will monitor and evaluate the phosphorus reduction capabilities of a state-of-the-art methane digester system installed on a dairy facility in the North Bosque River Watershed operating in conjunction with a TSSWCB-certified Comprehensive Nutrient Management Plan (CNMP). A multi-agency group including the Brazos River Authority, Texas Farm Bureau, and TCEQ is carrying out the overall methane digester project. Edge-of-field monitoring, funded by the TSSWCB and conducted by the Texas Institute for Applied Environmental Research, was initiated to determine the level of phosphorus reduction associated with the wastewater that has undergone treatment using methane digester technology and applied in accordance with the dairy's CNMP. Monitoring will occur on the liquid application fields used by the dairy operator to determine nonpoint source pollution (NPS) reductions.

Establishment of a Watershed Coordinator for the North Bosque River Watershed

The objectives of this project include identifying all pollution prevention projects and measures that are currently underway in the watershed, tracking the progress of these projects and measures, tracking rules and regulations that affect operations of entities in the watershed, reviewing water quality data for trend identification, providing opportunities for efficient and effective use of resources, and communicating through regularly scheduled stakeholder group meetings. Another objective of this project is to identify areas within the watershed that may not have received the attention necessary to reduce potentially detrimental impacts to water quality. The TSSWCB has contracted the Brazos River Authority to provide overall coordination of the project.

Athletic Field Topdressing as a Commercial Market for Compost from Dairy Manure

Composting of dairy manure and exporting of the compost out of the watershed have been advanced as a solution to the problem of the impaired water quality in the North Bosque River Watershed. The composting facilities have been established and the infrastructure to move manure from dairies to these facilities is in place. A high-volume market is needed that can afford the production and transportation costs of the compost. This project, carried out by the Leon-Bosque Resource Conservation and Development Council, seeks to develop that market by demonstrating the value of compost as a component to a premium blend of compost and sand.

TEXAS ATRAZINE INITIATIVE

BACKGROUND

Atrazine is a pre-emergent herbicide primarily used to control broadleaf and grassy weeds in corn and sorghum. Since it went on the market in 1958, it has become the most widely used herbicide in the United States.

It is classified as a restricted use herbicide due to its potential for groundwater contamination. Inconsistent with its restricted use designation, it is commonly found in Weed and Feed and other home and garden products, making it not only an agricultural issue, but an urban issue as well.

Atrazine, a chlorinated triazine herbicide, acts as a photosynthesis inhibitor. It is nontoxic to humans, having about the same toxicity as table salt. It has no adverse reproductive effects. It's not teratogenic or mutagenic. Only low levels of bioaccumulation may be expected in fish organs. It is nontoxic to birds and only slightly toxic to aquatic life.

Atrazine is, however, a possible human carcinogen (Class C). Due to this, a Maximum Contaminant Level (MCL) of 3 μ g/L (micro-grams per liter) has been established for finished drinking water. A micro-gram would equate to 0.000,001 grams per liter of water.

Atrazine is persistent in the environment, having a field half-life of 60 days. It is moderately soluble in water and is not removed from drinking water by conventional water treatment methods. Activated carbon, ozonation, cation exchange, and UV treatment methods must be used to remove it from drinking water.

Because of its persistence, solubility, and widespread use, Atrazine is commonly found in surface water. A 1993-95 US Geological Survey (USGS) study of pesticides in urban and agricultural streams in the Trinity River Basin found Atrazine in 100% of samples from both sources. This suggests that Atrazine is both an agricultural and urban problem. The concentrations in the agricultural streams were, however, greater than the concentrations in the urban streams.

DEVELOPMENT OF THE TEXAS APPROACH

In Texas, testing of Atrazine in drinking water began in 1993. However, the method used only had a detection limit of 3 μ g/L, and little detection was observed. In 1996, the state began using EPA (testing) Method 525.2, which has a much lower detection limit 0.065 μ g/L. Once the state began using this new (testing) method, numerous detections began appearing around the state in both surface and groundwater supplies. Between 1996 and 1999, Atrazine was detected in 69 water supplies around the state. In addition to drinking water monitoring, some raw water monitoring for Atrazine has been performed, but it has been infrequent and project specific.

In 1995, due to a detection of 9.6 μ g/L in Marlin City Lake, the Marlin City Manager contacted the TCEQ-Source Water Assessment and Protection (SWAP) team for assistance. The City of Marlin and TCEQ-SWAP team then approached EPA for federal assistance. In 1996, Marlin City Lake was designated an EPA Region 6 Pilot Source Water Protection Program project.

To deal with the growing number of Atrazine detections around the state, TCEQ-SWAP formed an "Atrazine Steering Committee" in 1997 (later, the committee was renamed the "Surface Water Protection Committee). Committee membership consisted of the TSSWCB, the TDA, Texas A&M University, Novartis, the USDA-NRCS, the USDA-Agricultural Research Service (ARS), the Texas Farm Bureau, the Brazos River Authority, and municipal representatives. The committee's goal was to develop a strategy to address the numerous detections of Atrazine in drinking water in a proactive manner through BMP implementation and public education.

In 1998, nine reservoirs were listed as impacted by Atrazine on the $\S 303(d)$ List. One of these, Aquilla Reservoir was listed as impaired by Atrazine. The running annual average at the Aquilla Water Supply District's treatment plant for the second quarter of 1997 through the first quarter of 1998 was 4.0 $\mu g/L$, violating the drinking water standard (3 $\mu g/L$) and triggering the listing of Aquilla Reservoir as an impaired water of the state. The other eight reservoirs, Lake Bardwell, Joe Pool Lake, Marlin City Lake, Lake Lavon, Lake Tawakoni, Richland Chambers Lake, Lake Waxahachie, and Big Creek Lake, were listed as threatened by Atrazine.

Following the listing of these reservoirs on the §303(d) List, the state began developing and implementing an initiative to remediate the Atrazine threats and impairments consisting of:

- Performing a standard TMDL in Aquilla Reservoir
- Building on the Source Water Protection Program in Marlin City Lake
- Performing targeted monitoring and implementing BMPs in the 7 threatened lakes

IMPLEMENTATION OF THE ATRAZINE INITIATIVE

The Aquilla TMDL was initiated in November 1998. It was a cooperative effort among the Texas Agricultural Experiment Station (TAES), Texas Cooperative Extension (TCE), Texas Department of Agriculture, Texas A&M University, TCEQ, TSSWCB, NRCS, Novartis, and local stakeholders. Over

\$500,000 was provided for the Aquilla and Marlin projects through PPG funds, §§319(h), 604(b), Source Water Protection, TCEQ GR, and in-kind contributions. Stakeholder committees were formed for the Marlin and Aquilla projects. Training for pesticide applicators, demonstration of BMPs, and TEX*A*SYST was provided by the TAES in cooperation with the TCE. The Texas Agricultural Experiment Station conducted monitoring in the Aquilla and Marlin Watersheds. SWAT modeling of the watershed was completed as an in-kind contribution effort of NRCS, TDA, and TCEQ. Economic analyses of the implementation of BMPs on farms in both watersheds were also completed by the TAES.

The TMDL for Atrazine in Aquilla Reservoir was adopted by the TSSWCB and TCEQ in March 2001, and was revised in June 2002 in response to comments from the Environmental Protection Agency (EPA). The implementation plan was approved by the TSSWCB and TCEQ in January 2002. Region 6 of the EPA approved the TMDL on October 30, 2002.

The TMDL stated that a load reduction of approximately 25% would result in attainment of the water quality standards.

The environmental target set for measuring the success of the TMDL implementation plan is a running annual average concentration of Atrazine *in the reservoir* that does not exceed 3.0 μ g/L for two consecutive years.

The TCEQ and the TSSWCB had the leadership roles for implementing the project, as well as for developing the TMDL. The key groups involved in implementing the plan at the local watershed level were agricultural producers and city governments. Regionally, the key partners were Aquilla Water Supply District, the Woodrow-Osceola Water Supply Corporation, the Hill County Appraisal District, and the Hill County-Blackland Soil and Water Conservation District. The Texas Cooperative Extension (TCE) and the Texas Department of Agriculture (TDA) also implemented aspects of the project. The U.S. Army Corps of Engineers, the federal agency that owns and operates the lake, also cooperated.

Since the source of the Atrazine was known, some activities were initiated before the TMDL and its implementation plan were complete. In 1998, the NRCS established the Aquilla EQIP Priority Area. From 1998-2003, the NRCS obligated over \$2 million to implement BMPs in the Aquilla Watershed. Along with the EQIP funding, the TSSWCB initiated a §319 project in 1999 to provide cost-share and technical assistance through the Hill County-Blackland SWCD to encourage the implementation of BMPs in the Aquilla Watershed to reduce sediment and pesticide runoff from corn and sorghum farms.

In 1999, Aquilla area farmers formed a Producers Atrazine Action Committee. Meetings featured speakers on water quality topics and training on pesticide application. The Producers Committee developed a list of BMPs recommended for use in the watershed, and composed a questionnaire to document adoption of BMPs over time. In addition, the committee met with pesticide dealers to increase dealers' awareness of the problem and to gain their assistance. The practice to incorporate herbicides into the soil upon application was already adopted by about 33% of area producers at the end of the first year, and reached nearly 100% by the third year of the project.

In the seven threatened lakes, targeted monthly monitoring was conducted near water supply intakes to verify the level of impairment and provide baseline data for future actions. Texas A&M University conducted the analysis. Water quality sampling conducted by the TCEQ was used to measure the effectiveness of the practices. In addition, Syngenta, a private corporation that markets Atrazine, continued its voluntary pesticide-monitoring program with the area's public water suppliers.

Partners in the program include the TSSWCB, the TCEQ, the TDA, the TPWD, the Texas Agricultural Experiment Station (TAES), the TCE, and the federal Natural Resources Conservation Service (NRCS). Several other agencies and interested parties were involved, including the EPA, the Brazos River Authority, the Sabine River Authority, the Aquilla Water Supply District, and Syngenta (formerly Novartis), a private corporation.

Monitoring was completed in August 2003, with the exception of Bardwell and Lake Waxahachie. The City of Waxahachie continues to sample these lakes to obtain the needed 36 monthly samples.

Technical and financial assistance was provided to corn and sorghum farmers to implement BMPs in the seven lakes watersheds through 12 TSSWCB §319 projects funded by EPA, over \$4.1 million in cost share and TA was provided to farmers through SWCDs. Demonstrations, monitoring, and modeling were also conducted through TSSWCB 319 projects to support and evaluate the implementation of BMPs in the seven threatened lakes. Through the TSSWCB 319 program, almost \$4.6 million has been obligated to address the Atrazine issues in the seven threatened lakes.

In 2000, the Little River was listed as threatened by Atrazine. In response to this listing, the TSSWCB initiated two 319 projects in 2002 to provide technical and financial assistance to the area to address this threat. These efforts were continued in 2003 with the provision of additional funding. Over \$1.1 million in 319 funding has been provided to encourage BMP implementation.

ATRAZINE INITIATIVE RESULTS – A SUCCESS STORY

As a result of the Atrazine Initiative, Atrazine concentrations in Aquilla Reservoir have been reduced to safe levels. Between 1998 and 2003, Atrazine concentrations in Aquilla Reservoir have been reduced by approximately 60%, to amounts lower than those required for treated drinking water. There have also been no Atrazine concentrations higher than the allowable amount at the Aquilla Water Supply District's drinking water treatment plant. Monitoring will be continued on a quarterly schedule to ensure that Atrazine concentrations remain at a safe level. The BMPs implemented to help reduce the level of Atrazine are under contract for five years and as long as they are maintained, the level of detectable Atrazine should remain below standards.

Monitoring by TCEQ indicates that Atrazine concentrations in five of the seven lakes have been reduced to levels that warrant their reclassification from threatened. Those lakes are now attaining their uses as a source for treated drinking water.

The other two lakes, Bardwell and Waxahachie Reservoirs, are still being monitored. However, trends in those two reservoirs indicate that they, too, will no longer be classified by the TCEQ as threatened within the next six months.

COASTAL MANAGEMENT PROGRAM

BACKGROUND

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings in federal Coastal Zone Management Act (CZMA) funds to Texas state and local entities to implement projects and program

activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP and is chaired by the Commissioner of the GLO. It comprises the chair or appointed representatives from the TPWD, the TCEQ, the TWDB, TxDOT, a member of the Texas State Soil and Water Conservation Board, a member of the RRC, the director of the Texas A&M University Sea Grant Program and four gubernatorial appointees. These members are selected to provide fair representation for all aspects concerning coastal issues.

The Council is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The Council reviews significant actions taken or authorized by state agencies and subdivisions that may adversely affect coastal natural resources to determine their consistency with the CMP goals and policies. In addition, the Council oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The Coastal Zone Act Reauthorization Amendments (CZARA), Section 6217, requires each state with an approved coastal zone management program to develop a federally approvable program to control coastal nonpoint source pollution. The Texas CCC appointed a Coastal Nonpoint Source Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency jointly administer the program. In Texas, two agencies hold primary responsibility for the program's development and implementation: the Texas Commission on Environmental Quality and the TSSWCB.

Section 6217 calls for implementation of management measures (§6217(g) measures or (g) measures) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydro modification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas requested exclusion from the program for silviculture, rangeland, and dry land row crop agriculture from the northern boundary of the Coastal Bend Bays and Estuaries Program Area southward to the northern boundary of the Arroyo Colorado Watershed. The silviculture and rangeland exclusions were not allowed.

Texas submitted the Texas Coastal Nonpoint Source Pollution Control Program to EPA and NOAA in December 1998. In October 2000, Texas submitted the Texas Coastal NPS Control Program 15-year Program Strategy and FY 2001-2005 Implementation Plan.

Final findings were issued by NOAA/EPA in July 2003, which contained conditional approval of the program. The agricultural and silvicultural portions of the program were approved without conditions. In these findings, the dry land row crop exclusion was denied.

CURRENT STATUS

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. The main mechanism we have for this is the State's cost-share program for implementing Water Quality Management Plans on farms and ranches through local soil and water conservation districts

(SWCD). For over five years, more than \$300,000 of state funds has been spent annually in the coastal zone to provide cost-share to implement approximately 80 Water Quality Management Plans.

In addition to state funding, Texas receives §6217 funding from NOAA for implementing the Coastal Nonpoint Source Pollution Control Program. For the past several years, SWCDs in the Coastal Management Zone have received grants from NOAA's §6217 Implementation Funds to install agricultural management measures through the TSSWCB Water Quality Management Plan program. This has been very effective in expanding Texas' effort in carrying out the agricultural portion of its coastal nonpoint source program.

In March, NOAA issued final guidance for the program funds. As written, the guidance would no longer allow these funds to be used to implement agricultural best management practices on private lands unless a number of conditions are met. As a result, this funding will effectively not be available for SWCDs to implement agricultural management measures beginning in FY-06.

In addition, the FY05 NOAA budget was approved on November 20, and the Coastal Nonpoint Source Pollution Control Program funding was cut by 70%. The FY05 amount NOAA has to distribute is only \$3 million. If Texas receives 3% of this amount, which it has in past yeas, the state will get only about \$90,000.

In the meantime, our Water Quality Management Plan program in the coastal management zone continues.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant from the TSSWCB to the Texas Forest Service.

Information Technology

Network Security Enhancement at Regional Office

In December 2004, agency staff began testing a major enhancement of security at agency regional offices. These offices have been traditionally managed in a Windows Workgroup model without the use of an authentication server. To increase security and provide a more centrally managed model, Workgroup authentication service will be added to each regional office network by adding the capability to an existing office server. This project will be completed using open source software components on existing hardware, resulting in no cost to the agency for software purchases, licensing or third-party support.

Conservation Program Database Application

The network specialist continued work from June 2004 – December 2004 on the development of a web-based database application to be used to track information related to the agency's conservation programs. This project will provide significant improvements in the efficiency, security, and usefulness of the agency's program data. The application should be available to agency staff during the next quarter. This project has been developed on and will be implemented using only open source software, resulting in no cost to the agency for software purchases, licensing or third-party support.

PUBLIC INFORMATION / EDUCATION REPORT FY04

GENERAL OVERVIEW

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association's Information/Education Committee and its programs.

2004 SUMMER TEACHER WORKSHOPS

Several teacher workshops are held each summer for teachers interested in conservation and natural resource issues. The workshops are held in various parts of the state in cooperation with the TSSWCB. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider teachers are able to get credit hours toward their required continuing education units (CEUs), while experiencing nature and the outdoors.

Lower Sabine-Neches SWCD hosted a Teachers Workshop in China, Texas at the Texas A&M Rice Experiment Station on July 8, 2004 from 8:00am-3:00pm. The workshop included: Rice research, including fertilization, insect management, water management, rice varieties, and a demonstration of rice cooking qualities.

2004 TEXAS CONSERVATION AWARDS PROGRAM

Each year, the Texas State Soil and Water Conservation Board and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2004 Awards Program marked the 26th year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition. The State Winners for 2004 were:

• Outstanding Conservation District – Victoria SWCD, Victoria, Bob McCan, Chairman.

- Outstanding Conservation Teacher Joe Ray Burkett, Agricultural Science and Technology, Jacksboro High School, Jacksboro, Jacksbo
- Poster Contest Jessica Anne Gerdes, Industrial junior High school, Lolita, Jackson SWCD.
- Essay Contest Beth Bellew, Brackettville High School, Brackettville, West Nueces-Las Moras SWCD

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

OUTSTANDING CONSERVATION DISTRICT

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

RESIDENT CONSERVATION RANCHER

Awarded to the outstanding resident conservation rancher in each area. They **must** be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

RESIDENT CONSERVATION FARMER

Awarded to the outstanding resident conservation farmer in each area. They **must** be a resident of the district, perform farming activities within the district and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

ABSENTEE CONSERVATION FARMER/RANCHER

Awarded to the outstanding absentee conservation farmer or rancher in each area. They **must** reside **outside** the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

WATER QUALITY MANAGEMENT PLAN

Awarded to the outstanding Water Quality Management Plan recipient in each area. They **must** be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

ESSAY CONTEST

Essays (topic: "The Living Soil") are to be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 18 years and younger, and does not jeopardize Texas University Interscholastic League eligibility.

POSTER CONTEST

Posters should address one of the following subjects: "Food for the Future" or "The Living Soil". Posters shall be submitted to local soil and water conservation districts for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1st, 2nd and 3rd place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

BUSINESS/PROFESSIONAL INDIVIDUAL

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

CONSERVATION TEACHER

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

WILDLIFE CONSERVATIONIST

Awarded to the outstanding wildlife conservationist in each area. They **must** be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

CONSERVATION HOMEMAKER

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family **must** own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

CONSERVATION DISTRICT EMPLOYEE

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

FORESTRY CONSERVATIONIST (AREA IV ONLY)

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They **must** be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

Soil & Water Stewardship Public Speaking Contest

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and those winners compete for the state title. The theme for the 2005 contest will be "Celebrate Conservation." Each year the state winner is invited to the Annual State Meeting of District Directors to deliver their presentation.

To prepare for the contest, students are to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The 2004 regional winners were:

Britnee Brotherton, Floydada, Floyd County SWCD
Donna Mitchell, Lamesa, Dawson County SWCD (2004 State Winner)
Katerine Byrd, Katy, Harris County SWCD
Randi Roanhaus, Herrietta, Little Wichita SWCD
Jodi Holloway, Naaman Forest, Dalworth SWCD
Tony Viramontes, Gilmer, Upshur-Gregg SWCD
Brooke Adamson, Florence, Little River-San Gabriel SWCD
Cassie Padgett, Fairfield, Freestone SWCD
Kaitlyn Van Hees, Huntsville, Walker SWCD
Weston Wolff, Taft, San Patricio SWCD

The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address. This year's winner, Ms. Donna Mitchell, was selected as the State Winner July 13, 2004 as the area winners competed at the State FFA Convention in the Fort Worth Convention Center.

WILDLIFE ALLIANCE FOR YOUTH

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers scholarships to contest winners. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. Students should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in October, which is the only contest held in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in April. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. Over 200 high school students participated in the competition.

The TSSWCB is the lead agency in sponsoring and organizing the contests. The Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Commission, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

STATE WOODLAND CLINIC AND CONTEST

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

REGIONAL WOODLAND CONTEST

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

An attempt was made to expand this clinic and contest to a national level. However, that effort was dropped due to the wide diversity of forestry species and management practices across the nation.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

The 2005 regional clinic will be hosted by Oklahoma at Beaver Bend State Park.

CONSERVATION EDUCATION VIDEO LIBRARY

The Association of Texas Soil and Water Conservation Districts has established and updates a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently there are over 180 conservation-related videos in the library available to districts and teachers. No rental fees are assessed to those wishing to borrow the videos from the library. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through your local soil and water conservation district or by contacting the TSSWCB. In 2004, 133 videos were loaned to various districts and teachers across the state.

CONSERVATION EDUCATION MODELS

The Nonpoint Source Pollution Watershed Flow Model and the Groundwater Flow Model allow students to understand how water supplies can become polluted from nonpoint sources through interactive demonstrations.

NONPOINT SOURCE (NPS) POLLUTION WATERSHED FLOW MODEL

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by runoff.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and Rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color "runoff". Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and

unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

GROUNDWATER FLOW MODEL

This model shows a cross-section of soil layers with a lake, a lagoon, and several wells represented. It uses a vacuum pump to make the water move through the soil layers and injection dyes to help visualize the flow of groundwater though soil and demonstrates how pollutants can travel in groundwater. The model demonstrates both percolation and the movement of groundwater due to pumping. Accompanied by an instructional video with tips on the setup, presentation and cleanup, the model is useful and easy to use.

BRUSH CONTROL PROGRAM

The 78th Legislature continued funding for the State Brush Control Program by providing \$3,114,794 in General Revenue Funds in FY04 and \$607,805 in General Revenue Funds in FY05. These funds were directed to be used for continuation of brush control projects designated by the Soil and Water Conservation Board. In addition the legislature granted the unexpended balance of FY03 Bond monies.

NORTH CONCHO

Cost share funding in the amount of \$13,253,950 has been made available in the North Concho River watershed. Money as of November 9, 2004:

- · 27,895.34 acres were under contract to be treated at a cost of \$929,932.94
- \$20,067.06 remained to be obligated
- · 297,189.07 acres had been treated at a cost to the State of \$12,014,172.94

PEDERNALES

Cost share funding in the amount of \$4,025,323.19 has been made available in the Pedernales River Watershed. Money as of November 9, 2004:

- 57.003 acres were under contract to be treated at a cost of \$3,848,048.85
- \$177,274.39 remained to be obligated
- 55,854 acres had been treated at a cost to the State of \$3,720,819.86

TWIN BUTTES

Cost share funding in the amount of \$8,901,049.28 has been made available in the Twin Buttes Watershed.

Money as of November 9, 2004:

- · 180,458.21 acres were under contract to be treated at a cost of \$8,435,825.76
- \$465,223.48 remained to be obligated
- · 158,966.76 acres had been treated at a cost to the State of \$7,538,913.30

LAKE BALLINGER

Cost share funding in the amount of \$419,900.75 has been made available in the Lake Ballinger Watershed.

Money as of November 9, 2004:

- · 8,187 acres were under contract to be treated at a cost of \$395,043.75
- \$24,857 remained to be obligated
- · 6775.5 acres had been treated at a cost to the State of \$320,655.25

OAK CREEK LAKE

Cost share funding in the amount of \$1,095,765 has been made available in the Oak Creek Lake Watershed.

Money as of November 9, 2004:

- 16,535 acres were under contract to be treated at a cost of \$800,146.7
- \$25,710.27 remained to be obligated
- · 15,114 acres had been treated at a cost to the State of \$717,896.86

PECAN CREEK

Cost share funding in the amount of \$323,887 has been made available in the Pecan Creek Watershed. Money as of November 9, 2004:

- · 11,982.42 acres were under contract to be treated at a cost of \$319,726.57
- \$3,862.50 remained to be obligated
- · 11,982.37 acres had been treated at a cost to the State of \$303,226.68

MOUNTAIN CREEK LAKE

Cost share funding in the amount of \$95,542 has been made available in the Mountain Creek Watershed. Money as of November 9, 2004:

- · 1,616 acres were under contract to be treated at a cost of \$79,359.07
- \$9368.7 remained to be obligated
- · 1,440 acres had been treated at a cost to the State of \$70,033.32

CHAMPION CREEK LAKE

Cost share funding in the amount of \$906,932 has been made available in the Champion Creek Watershed.

Money as of November 9, 2004:

- · 17,438 acres were under contract to be treated at a cost of \$868,887.00
- · \$38,045 remained to be obligated
- · 13.359 acres had been treated at a cost to the State of \$624,768.50

SPRING CREEK / DOVE CREEK PROJECT

Cost share funding in the amount of \$1,146,275 has been made available in the Spring/Dove Watershed. Money as of November 9, 2004:

· 29,766 acres were under contract to be treated at a cost of \$1,052,999.04

- · \$93,275.96 remained to be obligated
- · 27,326 acres had been treated at a cost to the State of \$932,881.54

PECOS SALT CEDAR

Cost share funding in the amount of \$525,976.75 has been made available in the Pecos Watershed. Money as of November 9, 2004:

- · 8,390.2 acres were under contract to be treated at a cost of \$438,205.50
- \$140,218.75 remained to be obligated
 - 4948 ACRES HAD BEEN TREATED AT A COST TO THE STATE OF \$258,367.25

UPPER COLORADO SALT CEDAR

Cost share funding in the amount of \$52,447.50 has been made available in the Upper Colorado Watershed. Money as of November 9, 2004:

474 acres were under contract to be treated at a cost of \$24,885.00 \$0.00 remained to be obligated 0 acres had been treated at a cost to the State of \$0.00

Update on following Activities

TSSWCB staff completed

- Certified 65 brush contracts.
- Completed 9 Brush Control Contracts
- Assisted James Powell tour with Bob McCann, President of Cattle Raisers, Bob Cook, Executive Director of TPW, Reed Stewart of the TSSWCB and Steve Manning with the Leon River Restoration Project.
- Assisted Drought Awareness tour.
- Presented updates at the Middle Concho and Colorado City SWCD meetings.
- Updated priority list for North Concho, Twin Buttes, Oak Creek, and Lake Ballinger.
- Prepared brush control reports/updates for Runnels, Middle Clear Fork, Coke County, Nolan, Tom Green, and Eldorado-Divide SWCD.
- Updated Pecos contract logs
- Reviewed Pecos Salt Cedar contracts.
- Discuss EQIP Salt Cedar contracts with Elisha Kuehn and Melony Sikes of the NRCS
- Assisted Devils River SWCD with Pecos River Salt Cedar Project.
- Reviewed methods and Effectiveness of fixed wing application with the City of San Angelo and TCEA.
- Assisted Toyah-Limpia SWCD with Pecos River Salt Cedar contracts
- Assisted Trans Pecos SWCD with Pecos River Salt Cedar contracts
- Assisted Upper Colorado SWCD with Salt Cedar Contracts
- Assisted Crockett County SWCD with Pecos River Salt Cedar Project
- Llano County Commissioner Court to review participation of the Llano County School Land
- Assisted with the State Meeting in Laredo
- Received training from Dr. Charlie Hart on spraying Salt Cedar on the Pecos

	and Devils Riv			

Texas State Soil and Water Conservation Board Operating Statement Report Period - September 1, 2003 - August 31, 2004

Revenues Legislative Appropriations	Governmental Funds Total	Capital Asset/ Liability Adjustments	Statement of Activity
Original Appropriations (GR) Additional Appropriations(GR)	\$10,625,605.00 \$ 577,586.78	\$ -	\$10,625,605.00 \$ 577,586.78
Taxes (GR) Federal Revenue (PR - Operating or Capital) Federal Grant Pass-Through Revenue (GR)	\$ 3,946,490.00		\$ 3,946,490.00
State Grant Pass-Through Revenue (GR) Licenses, Fees, & Permits (PR) Interest and Other Investment Income (PR) Interest and Other Investment Income (GR) Net Increase (Decrease) in Fair Value (PR) Net Increase (Decrease) in Fair Value (GR) Land Income (PR) Settlement of Claims (PR) Settlement of Claims (GR)	ψ 0,010,100.00		ψ 0,0 10,100.00
Sales of Goods and Services (PR)			
Other (PR - Chg for Serv, Operating or Capital) Other (GR)	\$ 189.00	\$ -	\$ 189.00
Total Revenues	\$15,149,870.78	\$ -	\$15,149,870.78
Total November	<u>Ψ10,110,070.70</u>	Ψ	Ψ10,110,070.70
Expenditures			
Salaries and Wages	\$ 2,223,902.36	\$ 41,749.44	\$ 2,265,651.80
Payroll Related Costs	\$ 619,937.23		\$ 619,937.23
Professional Fees and Services			
Travel	\$ 242,464.41		\$ 242,464.41
Materials and Supplies	\$ 105,006.78		\$ 105,006.78
Communication and Utilities	\$ 92,448.04		\$ 92,448.04
Repairs and Maintenance	\$ 10,979.59		\$ 10,979.59
Rentals and Leases	\$ 143,554.22		\$ 143,554.22
Printing and Reproduction	\$ 4,793.24		\$ 4,793.24
Claims and Judgments	Ф 004.004.4 7		Ф 004.004.4 7
Federal Grant Pass-Through Expenditures	\$ 904,064.17		\$ 904,064.17
State Grant Pass-Through Expenditures	¢ 2.002.246.00		¢ 2,002,246,00
Intergovernmental Payments	\$ 2,992,346.00 \$12,868,059.67		\$ 2,992,346.00 \$12,868,059.67
Public Assistance Payments Employee Benefit Payments	φ12,000,059.0 <i>1</i>		φ12,000,039.0 <i>1</i>
Other Expenditures	\$ 610,405.92		\$ 610,405.92
Debt Service	φ 010,405.92		φ 010,405.92
Depreciation Expense	\$ -	\$ 53,552.06	\$ 53,552.06
Total Expenditures/Expenses	\$20,817,961.63	\$ 95,301.50	\$20,913,263.13
I Otal Expellatules/Expellaca	Ψ20,017,301.03	ψ 33,301.30	Ψ20,910,203.13
Excess (Deficiency) Revenues over Expenditures*	\$ (5,668,090.85)	\$ (95,301.50)	\$ (5,763,392.35)

^{*} Encumbrances for FY03 were \$12,538,623.32 accounting for expenditures exceeding revenues in FY04.

Texas State Soil and Water Conservation Board Fund Financial Statement - Fund Balances Report Period - September 1, 2003 - August 31, 2004

	Governmental Funds Total	Capital Asset/ Liability Adjustments	Statement of Activity
Fund Balance			
Beginning September 1, 2003	\$15,231,959.48	\$ -	\$15,231,959.48
Net Change in Fund Balance	\$ (5,668,090.85)		\$ (5,668,090.85)
Lapsed Appropriations	\$ (2,541,695.92)	\$ (95,301.50)	\$ (2,636,997.42)
Ending August 31, 2004	\$ 7,022,172.71	\$ (95,301.50)	\$ 6,926,871.21
Government-Wide Statement of Net Assets			
Beginning September 1, 2003	\$ 7,022,172.71	\$ (95,301.50)	\$ 6,926,871.21
Net Change in Net Assets	\$ -	\$ (51,481.01)	\$ (51,481.01)
Ending August 31, 2004	\$ 7,022,172.71	\$ (146,782.51)	\$ 6,875,390.20